TABLE OF CONTENTS

Volume IV

JANUARY, 1920

The Importance of the Nodal Points in Lens Testing 1
G. W. MOFFITT

The Measurement of Diffuse Reflection Factors and a New Absolute Reflectometer 9
A. H. TAYLOR

A New Microphotometer for Photographic Densities 24
W. F. MEGGERS AND PAUL D. FOOTE

MARCH, 1920

The Response of the Average Pupil to Various Intensities of Light 35
PRENTICE REEVES

A New Soft Focus Screen for Portrait Photography 44
C. W. FREDERICK

The Ionization and Resonance Potentials of Nitrogen, Oxygen and Hydrogen 49
F. L. MOHLER AND PAUL D. FOOTE

1919 Report of Standards Committee on Visual Sensitometry 55
P. G. NUTTING, Chairman

Fourth Annual Meeting of the Optical Society of America 80
P. G. NUTTING, Acting Secretary

MAY, 1920

A Method for Determining the Photographic Absorption of Lenses 83
G. W. MOFFITT

Dyes for Photographic Sensitizing 91
W. F. MEGGERS AND F. J. STIMSON

Measurements on the Thermal Dilatation of Glass at High Temperatures . 105
C. G. PETERS AND C. H. CRAGOE

Atomic Theory and Low Voltage Arcs in Cæsium Vapor 145
PAUL D. FOOTE AND W. F. MEGGERS

Dispersion in Optical Glasses. I. 148
F. E. WRIGHT

The "All or None" Law in Visual Response 160
LEONARD THOMPSON TROLAND

1919 Report of the Standards Committee on Colorimetry 186
IRWIN G. PRIEST, Chairman

Reviews and Notices 188

415419

TABLE OF CONTENTS—Continued

JULY, 1920

Dispersion in Optical Glasses, II 195
F. E. Wright

Classification and Nomenclature of Optical Glass 205
George W. Morey

A Note on the Annealing of Optical Glass 213
L. H. Adams and E. D. Williamson

A Method for Determining the Annealing Temperature of Glass 224
J. T. Littleton and E. H. Roberts

1919 Report of the Standards Committee on Photometry and Illumination . 230
P. G. Nutting, Chairman

1919 Report of the Standards Committee on Lenses and Optical Instruments 236
C. W. Frederick, Chairman

The Standards Committees of the Optical Society of America 239
P. G. Nutting

Notices 242

SEPTEMBER, 1920

A Focal-Length Equation 243
C. W. Woodworth

Note on Professor Woodworth's Formula for Focal Length 245
James P. C. Southall

Some General Characteristics of Spectro-photo-electrical Conduction in Solids 249
W. W. Coblentz

On the Relation Between Photographic Density, Light Intensity, and Exposure Time 255
Frank E. Ross

The Cemented Telescope Objective of Barium Crown and Flint 274
I. C. Gardner

Note on the Path of a Ray Through a Prism in a Principal Section 283
James P. C. Southall

The Treatment of Certain Special Cases in Lens Calculation 286
C. W. Woodworth

Note on Calculation of Path of Ray Through a Symmetrical Optical Instrument 294
James P. C. Southall

A New Method for the Measurement of Photographic Filter Factors 300
Raymond Davis

1919 Report of Standards Committee on Pyrometry 305
W. E. Forsythe, Chairman

A Cooperative College Course in Illuminating Engineering 337
F. E. Cady

The Absorption of Heat in Glass 340
A. Q. Tool and C. G. Eichlin

Resonance Potentials and Low-Voltage Arcs for Metals of the Second Group of the Periodic Table 364
F. L. Mohler, Paul D. Foote and W. F. Meggers

The Precision of Photometric Measurements 371
F. K. Richtmyer and E. C. Crittenden

Preliminary Note on the Relations Between the Quality of Color and the Spectral Distribution of Light in the Stimulus 388
Irwin G. Priest

Note on the Relation Between the Frequencies of Complementary Hues . . 402
Irwin G. Priest

Reviews 405

TABLE OF CONTENTS—Continued

NOVEMBER, 1920

The Testing of Plane Surfaces by Interference Methods 407
C. G. Peters and H. S. Boyd

A Colorimeter Operating on the Subtractive Principle 420
L. A. Jones

Transmission and Refraction Data on Standard Lens and Prism Material with Special Reference to Infra-red Spectroradiometry 432
W. W. Coblentz

A New Study of the Leucoscope and Its Application to Pyrometry 448
Irwin G. Priest

Note on a New Method of Joining Glass 496
C. O. Fairchild

Notices 504

Index 507